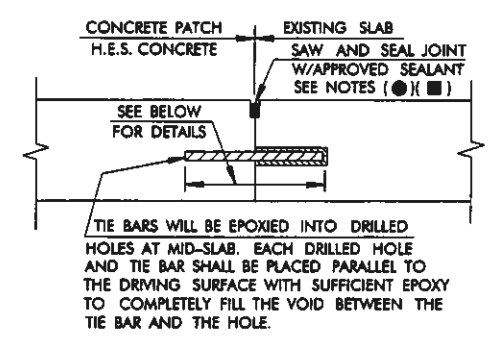
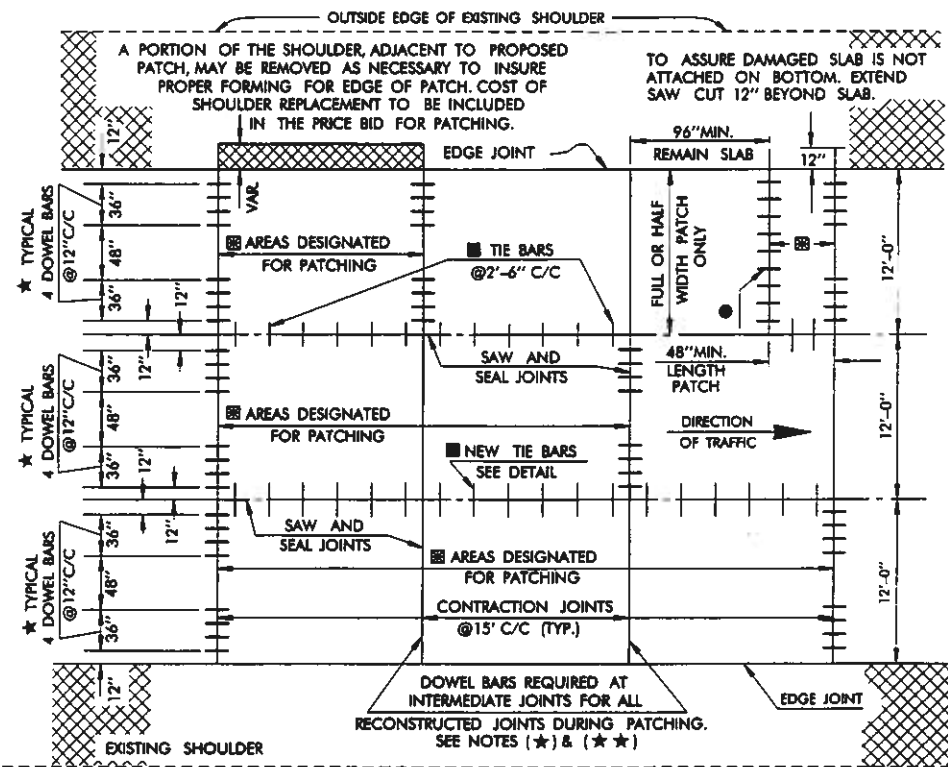
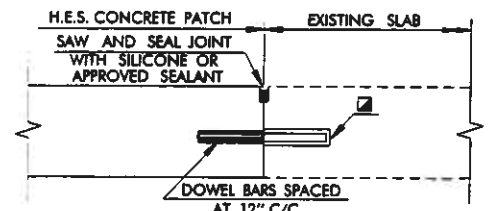


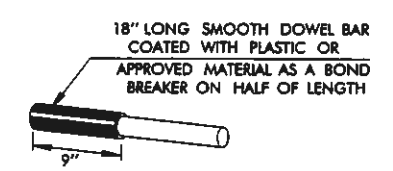
DESCRIPTION	REVISIONS	DATE
RE-ISSUE W/ENGLISH 1999 SPECS.		7/99
Modify Dowel Bar Sizes		3/07



- LONGITUDINAL JOINT - TIE BARS - NO. 5 DEFORMED REINFORCING STEEL BARS, 30" LONG, SHALL BE EPOXIED INTO 3/4" DIA. (MAX.) DRILLED HOLES AT 30" C/C TIED LONGITUDINALLY. JOINT SHALL BE SAWED AND SEALED.
- TRANSVERSE JOINT - TIE BARS - NO. 10 DEFORMED REINFORCING STEEL BARS, 18" LONG, SHALL BE EPOXIED INTO 1 1/2" DIA. (MAX.) DRILLED HOLES AT 18" C/C. FULL WIDTH, TRANSVERSE, TIED JOINTS SHALL NOT BE SAWED OR SEALED. SEE NOTE (★ ★ ★)



- DOWEL BARS SHALL BE EPOXIED (NON-CAPPED END) INTO 1 1/2" DIA. (MAX.) BY 9" DEEP DRILLED HOLES, PLACED AT MID-SLAB. DRILLED HOLES AND DOWEL BARS SHALL BE PLACED PARALLEL TO THE DRIVING SURFACE. SUFFICIENT EPOXY SHALL BE USED TO COMPLETELY FILL THE VOID BETWEEN THE DOWEL BAR AND THE HOLE.
- DOWEL BAR SHALL BE COVERED WITH BOND BREAKER CAP OR APPROVED PLASTIC-LIKE MATERIAL OVER ONE HALF THE LENGTH TO INSURE THAT THE BOND BETWEEN DOWEL BAR AND CONCRETE PATCH IS BROKEN. PAINT WILL NOT BE ACCEPTABLE.

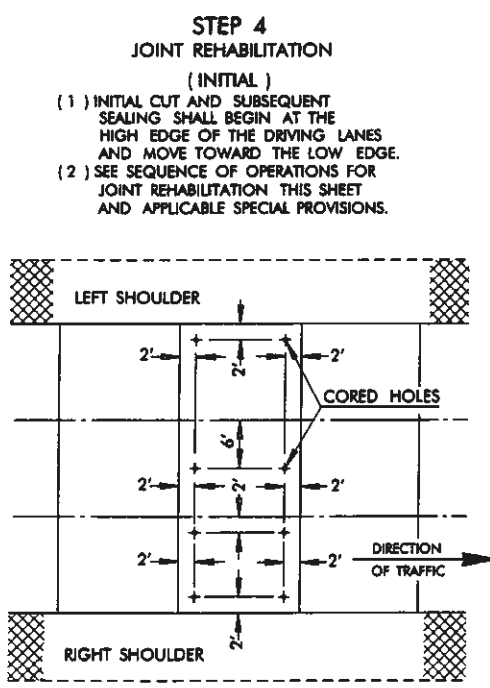


- 1" DIA. DOWELS FOR 6" TO 8" PAVEMENTS
- 1 1/2" DIA. DOWELS FOR 8 1/2" TO 10" PAVEMENTS
- 1 1/2" DIA. DOWELS FOR 10 1/2" PAVEMENTS OR THICKER.

- DOWEL BAR SETS (FOUR BARS AT 12" C/C WITH BOND BREAKER CAPS) SHALL BE USED WHEN RECONSTRUCTED FULL WIDTH JOINT FALLS WITHIN FOUR FEET OF THE ORIGINAL JOINT. WHEN MORE THAN ONE RECONSTRUCTED JOINT FALLS WITHIN FOUR FEET OF THE ORIGINAL JOINT (I.E., PATCH SPANS ORIGINAL JOINT), THEN THE RECONSTRUCTED FULL WIDTH JOINT NEAREST TO THE ORIGINAL JOINT WILL BE CONSTRUCTED USING THE FOUR DOWEL DESIGN PATTERN AS SHOWN THIS SHEET.
- IF PATCH EXTENDS BEYOND FOUR FEET, IN BOTH DIRECTIONS, FROM AN ORIGINAL FULL WIDTH TRANSVERSE JOINT, THEN THE ORIGINAL FULL WIDTH JOINT WILL BE RECONSTRUCTED USING THE FOUR DOWEL PATTERN DESCRIBED IN NOTE (★), OR APPROVED LOAD TRANSFER DEVICES MEETING REQUIREMENTS OF SECTION 414.04 (STD. SPECS.) AND STD. DRAWINGS.
- FULL WIDTH RECONSTRUCTED JOINTS LOCATED FOUR FEET OR MORE FROM AN ORIGINAL JOINT & NOT COVERED BY PREVIOUS TWO NOTES SHALL BE RECONSTRUCTED USING TRANSVERSE TIE BAR JOINT. SEE NOTE (●). OVERALL PATCH LENGTH SHALL NOT EXCEED 7 FEET (15' JOINTED PAVEMENT) & 15 FEET (62' JOINTED PAVEMENT), UNLESS OTHERWISE SHOWN ON PLANS.

**FULL DEPTH PATCHING DETAIL**

- STEP 1**  
CONCRETE PATCHING
- AREAS TO BE PATCHED WILL BE DESIGNATED BY THE ENGINEER.
  - FOR REMOVAL OF FULL DEPTH PATCHES, SAWING IS TO BE FULL DEPTH. LIFT OUT DAMAGED PAVEMENT WHENEVER PRACTICAL.
  - THE FLOW OF TRAFFIC MAY BE RESTRICTED TO ONE LANE DUE TO PATCHING OPERATION FOR A MAXIMUM DISTANCE OF ONE MILE.
  - FOR ADDITIONAL INFORMATION SEE P & P SHEETS.
- STEP 2**  
SLAB STABILIZATION
- CORE 2" DIAMETER (2 1/2" MAX.) HOLES IN A MANNER APPROVED BY THE ENGINEER.
  - PRESSURE GROUT SLAB IN ACCORDANCE WITH PLANS OR APPLICABLE SPECIAL PROVISIONS.
- STEP 3**  
DIAMOND GRINDING
- AFTER SLAB STABILIZATION & APPROPRIATE CURE TIME HAS BEEN DETERMINED, GRINDING OPERATIONS MAY BEGIN.
  - SEE PLANS OR APPLICABLE SPECIAL PROVISIONS.



**DETAIL OF UNDERSEALING**

- STEP 4**  
JOINT REHABILITATION (INITIAL)
- INITIAL CUT AND SUBSEQUENT SEALING SHALL BEGIN AT THE HIGH EDGE OF THE DRIVING LANES AND MOVE TOWARD THE LOW EDGE.
  - SEE SEQUENCE OF OPERATIONS FOR JOINT REHABILITATION THIS SHEET AND APPLICABLE SPECIAL PROVISIONS.
- STEP 5**  
JOINT REHABILITATION (FINAL)
- FINAL JOINT CUT SHALL BEGIN AT THE LOW EDGE OF THE DRIVING LANES AND MOVE TOWARD THE INITIAL JOINT.
  - INSTALLATION OF BOND BREAKER AND SILICONE JOINT SEALANT SHALL BE FROM THE END OF THE INITIAL JOINT TO THE LOW EDGE OF THE DRIVING LANES.
  - SEE SEQUENCE OF OPERATIONS FOR JOINT REHABILITATION THIS SHEET AND APPLICABLE SPECIAL PROVISIONS.

**BASE REPAIR AND PREPARATION**

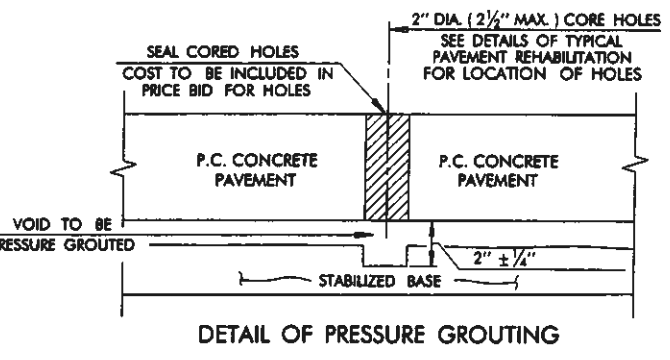
IN AREAS WHERE PATCHING IS REQUIRED, THE REMOVAL OF THE DAMAGED PAVEMENT SHALL BE PERFORMED IN A MANNER THAT WOULD MINIMIZE FURTHER DAMAGE TO THE UNDERLYING SUBBASE(S), SUBGRADE OR ADJACENT PAVEMENT(S). NO COMPENSATION WILL BE MADE TO CONTRACTOR FOR REPAIRING DAMAGE SUSTAINED DURING THE REMOVAL PROCESS.

COST OF ANY INCIDENTAL BASE REPAIR, LEVELLING OR BACKFILLING, UP TO 2", WILL BE INCLUDED IN H.E.S. CONCRETE (FULL DEPTH PATCHING) PAY ITEM. INCIDENTAL REPAIR, LEVELLING AND BACKFILLING MATERIAL SHALL CONSIST OF SAME MATERIAL ENCOUNTERED, CRUSHED LIMESTONE OR BY THICKENING H.E.S. FULL DEPTH PATCH.

BASE REPAIR, LEVELLING AND RELATED BACKFILLING OF SUBBASE(S) OR SUBGRADE IN EXCESS OF 2" SHALL BE PAID FOR AS UNCLASSIFIED EXCAVATION WITH QUANTITIES COMPUTED FROM BOTTOM OF SLAB DOWNWARD TO LIMITS OF REMOVAL.

**SUGGESTED SEQUENCE OF OPERATIONS FOR JOINT REHABILITATION (INITIAL AND FINAL)**

- SAW EXISTING LONGITUDINAL AND CONTRACTION JOINTS TO WIDTH AND DEPTH REQUIRED. SEE ROADWAY STANDARD LECS-3 FOR DETAILS.
- BLOW OUT JOINT WITH COMPRESSED AIR IMMEDIATELY AFTER SAWING.
- SAND BLAST JOINT, BLOW CLEAN AND IMMEDIATELY PLACE BACKER ROD.
- BLOW JOINT CLEAN WITH COMPRESSED AIR AND FILL CLEAN JOINT WITH SEALANT WITHIN 2 MINUTES.
- ALLOW CURING TIME FOR SILICONE SEALANT.
- BID ITEM FOR JOINT REHABILITATION WILL INCLUDE SAWING, CLEANING OF JOINT, BACKER ROD, SILICONE SEALANT AND ANY INCIDENTALS REQUIRED TO COMPLETE THE WORK.



**DETAIL OF PRESSURE GROUTING**

- GENERAL NOTES**
- ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 1999 ENGLISH STANDARD SPECIFICATIONS.
  - COST OF SAWING AND REMOVAL OF PAVEMENT FOR FULL OR PARTIAL DEPTH PATCHING TO BE INCLUDED IN THE PRICE BID FOR H.E.S. CONCRETE PATCHING UNLESS OTHERWISE SHOWN ON THE PLANS.
  - A PORTION OF THE SHOULDER, ADJACENT TO PROPOSED PATCH MAY BE REMOVED AS NECESSARY TO INSURE PROPER FORMING FOR EDGE OF PATCH. COST OF SHOULDER REPLACEMENT TO BE INCLUDED IN THE PRICE BID FOR THE PATCH.
  - COST OF DOWEL BARS, TIE BARS, EPOXY AND ANY INCIDENTALS REQUIRED FOR INSTALLATION TO BE INCLUDED IN THE PRICE BID FOR THE H.E.S. CONCRETE FULL DEPTH PATCHING.

**BASIS OF PAYMENT**

ITEM NO.	ITEM	UNIT
202.06(C)	UNCLASSIFIED EXCAVATION	CU.YD.
414.06(B)	H.E.S. CONCRETE (FULL DEPTH PATCHING)	SQ.YD.
419.06	CONCRETE JOINT REHABILITATION	L.F.
425.06	DIAMOND GRINDING CONCRETE PAVEMENT	SQ.YD.
426.06(A)	CORED HOLES	EA.
426.06(B)	PORTLAND CEMENT	TON
426.06(C)	FLY ASH	TON

APPROVED BY ROADWAY ENGINEER *Timothy A. Tugeler* DATE 3/1/07

**OKLAHOMA DEPT. OF TRANSPORTATION**  
ROADWAY STANDARD (ENGLISH)  
PORTLAND CEMENT CONCRETE  
PAVEMENT REPAIR

1999 SPECIFICATIONS | PCPR-2 | OIE  
R-118E